

FACTORS RELATED TO PERSONAL QUALITY OF LIFE IN PRISON INMATES

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Abstract

Objectives: The aim of the study was to analyze the determinants of prison inmates' personal quality of life (PQoL). **Material and Methods:** Three hundred ninety men imprisoned in penitentiary institutions were assessed. Data were collected by means of the the *Sense of Quality of Life Questionnaire*, the *General Self-Esteem Scale*, the *Social Support Scale*, the *Resiliency Assessment Scale*, the *Trait Personality Inventory*, which have high validity and reliability. All models were specified in structural equations modeling using Mplus v. 8.2. **Results:** The positive correlates of PQoL are: self-efficacy, social support, and ego-resiliency. The negative correlate of PQoL is trait depression. The study confirmed that 2 factors affected ego-resiliency: self-efficacy and trait depression. **Conclusions:** All significant factors, such as self-efficacy, social support, ego-resiliency, or trait depression, should be taken into account in rehabilitation programs. *Int J Occup Med Environ Health.* 2023;36(2)

Key words:

well-being, prison inmates, prisons, quality of life, personal quality of life, incarcerated persons

INTRODUCTION

According to Gresham M. Sykes's classic theory regarding the deprivation of prisoners' needs, commonly known as the "pains of imprisonment," prisoners are the most deeply frustrated in 5 areas:

- loss of liberty,
- desirable goods and services,
- heterosexual relationships,
- autonomy, and
- security [1].

The loss of liberty consists in prisoners being largely deprived of the chance to decide about their life and take responsibility for it. In the situation of imprisonment, it is difficult to achieve individuality and independence

and to be authentic – in other words, to live in harmony with oneself, pursuing personal goals, interests, and passions [2]. This was confirmed by research conducted among Polish prisoners, including those serving a life sentence [3]. As an environment involving social, sensory, and intellectual deprivation, prison led to a decrease in inmates' quality of life [4].

Quality of life (QoL) is a multidimensional concept. As noted by Brown et al. [5], its definitions have been formulated both in macro terms (societal and objective, including income, employment status, housing situation, education level, and other circumstances associated with living conditions and environment) and in micro terms (individual and subjective, including general perceived

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quality of life, personal experiences, and values). Quality of life has been considered in relation to its proxy indicators, which include well-being, happiness, and satisfaction with life. Models of QoL are not consistent, either [5]. Some authors equated well-being with comfort and saw QoL as a concept related to these two [6]. According to Straś-Romanowska [2], QoL combines the content and evaluation (both cognitive and emotional) of life experiences. It comprises 4 dimensions: psychophysical, psychosocial, personal, and metaphysical. According to the authors [2] personal quality of life (PQoL) is associated with asserting one's individuality and independence against the social background. In this perspective, human subjectivity involves taking responsibility for one's decisions and for one's life. People evaluating their PQoL as high have free choice, strive for self-realization and authenticity (living in harmony with themselves), pursue personal goals, interests, and passions, like what they do, accept themselves as they are, and have clearly defined goals to achieve [2].

Personal QoL consists in autonomy, which is one of the main domains of prison social climate [7]. Imprisonment is, by definition, incompatible with autonomy. In practice, however, inmates retain various degrees of freedom to make decisions in the prison setting [8]. Some studies have revealed that greater autonomy within prison walls can partly soothe the pains of imprisonment [9]. Personal QoL is related to another domain of prison social climate, namely meaningful activities [7]. Individuals evaluating their PQoL as high have free choice, pursue personal goals, interests, and passions, like what they do, and have clearly defined goals to achieve. As Bosma et al. [8] observed, this kind of activities can help inmates to cope with imprisonment by occupying their time and this way may provide opportunities for personal growth. The existing studies support this statement [10,11].

In this light, it seems important to explore the correlates of PQoL. Only few studies have examined the over-

all quality of prison life [12–16], and there has been no research into its personal aspect (PQoL).

The study aimed to identify PQoL-related factors in incarcerated persons. As potential correlates of personal QoL, variables that had been empirically found to be positively associated with QoL in other samples were chosen. The authors wanted to check if these variables were also significant for prisoners' PQoL. Moreover, these variables were themselves significant in the prison population.

For example, self-efficacy significantly predicted self-perceived QoL in parents whose children suffered from cerebral palsy and in patients with multiple sclerosis [17]. Inmates with higher self-efficacy in the domain of health – namely, more confident in their health self-management abilities significantly more often rated their health as better, more intensely engaged in health-promoting behaviors, and reported greater health improvement since imprisonment [18]. The levels of criminal thinking increase when individuals experience low self-efficacy. Increasing self-efficacy has the potential to decrease the risk of recidivism [19,20].

The most frequently tested and the most significant predictor of QoL is social support. Hart [21] defined social support as “interpersonal ties that are rewarding and protective of an individual” [21, p. 68], while Sarason et al. [22] explained it as “the existence or availability of people on whom we can rely, people who let us know that they care about, value and love us” [22, p. 127]. The positive effect of social support on QoL has been found also in a sample of prisoners. However, no studies were found on the associations of social support with personal QoL. Social support was found to be an important resource for inmates in a number of studies [23–25].

Another predictor selected in the current study was depression [26]. Strong evidence is available that individuals high in depression exhibit significantly reduced QoL [27,28]. A negative association of depression and QoL has been found in numerous studies. Depression

is also analyzed as a variable in many studies concerning prisoners [29–31].

The next considered predictor is resiliency, usually defined as positive adaptation despite significant adversity. Individuals high in ego-resiliency show better psychological adjustment [32]. People with lower ego-resiliency, by contrast, usually respond passively to situational demands; their coping is more problematic, which leads to maladaptive outcomes [33]. The positive associations between quality of life and ego-resiliency were confirmed in various groups. No research results were found on correlations between QoL and ego-resiliency in prisoners. However, ego-resiliency itself was a significant resource for prisoners [34–36].

Some authors underline that ego-resiliency is predicted by or associated with the abilities to control one's emotions, attention, and behavior [37] and beliefs about managing negative emotions. In this light, the authors expected that emotional self-efficacy would predict PQoL directly and indirectly through ego-resiliency.

The next factors that may potentially predict PQoL indirectly (through ego-resiliency) are social support and emotions. Social support is related to ego-resiliency development [37]. Teenagers from supportive families may begin their adolescence with a higher level of ego-resiliency because the involved parenting the experience results in greater psychological resources, increases their received emotional support, and provides them with guidance and practical assistance. Research has shown that emotionality is related to ego-resiliency indicators [38]. It can therefore be expected that trait depression will predict PQoL indirectly through ego-resiliency.

To sum up, while the results of studies on QoL correlates are available, no studies were found on the correlates of PQoL. Additionally, although there is a body of literature on associations between different variables and QoL, little research has been done on the link between these factors and QoL in prisoners. Not much is known, either,

about the indirect effects of self-efficacy, depression, and social support on PQoL (through ego-resiliency) in prison inmates.

MATERIAL AND METHODS

The project aimed to identify the correlates of PQoL in incarcerated persons. To address this research problem, 2 hypotheses were formulated:

- H1: Self-efficacy, social support, and ego-resiliency are positively correlated with prisoners' PQoL and trait depression is negatively correlated with prisoners' PQoL;
- H2: Trait depression, social support, and self-efficacy impact on personal PQoL indirectly through ego-resiliency.

The study included 390 male prisoners. Their age ranged 19–68 years ($M \pm SD$ 35.19 \pm 9.65); 7.7% of the sample were individuals with higher education, 26.7% had vocational education, and 18.5% had elementary education. Participants from cities with a population ≥ 150 000 accounted for 38.2% of the sample.

Male prisoners were recruited through convenience sampling from penitentiary institutions run by the District Inspectorate of Prison Service in Warsaw, Poland, namely: the Grochów, Białołęka, Mokotów, and Służewiec Remand Prisons in Warsaw and the Białołęka Penitentiary, also in Warsaw. The incarcerated persons were invited to take part in the study by the researcher, who was not a prison staff member. All subjects gave their informed consent to participate in the study. The researchers collected the completed questionnaires. The participants' identity was not disclosed to the prison management. The research procedures applied complied with the Declaration of Helsinki. The project was approved by the Institutional Review Board at the Faculty of Education of the Cardinal Stefan Wyszyński University in Warsaw and from the Research Ethics Committee of that university. The authors used the following measures:

- The *Sense of Quality of Life Questionnaire* (SQLQ) by Maria Straś-Romanowska [2] is used to assess global QoL and its 4 dimensions: psychophysical, psychosocial, personal, and metaphysical. The SQLQ has 60 items with a 4-point Likert scale (strongly disagree, disagree, agree, strongly agree). Cronbach's α ranged from 0.65 for the *Personal QoL* scale to 0.77 for the *Psychophysical QoL* scale. McDonald ω coefficient was 0.86. In this article the authors present an analysis of *Personal QoL* (PQoL).
- The *General Self-Esteem Scale* (GSES) by Schwarzer, Jerusalem, and Juczyński, adapted into Polish by Juczyński [29], measures self-efficacy. The scale was developed based on the concepts of expectations and personal self-efficacy as defined by Bandura. The 10 items of the GSES are rated on a 4-point Likert scale (not at all true, hardly true, moderately true, exactly true). Cronbach's α , computed as a measure of internal consistency, was 0.85; the test-retest correlation over a 5-week interval was 0.78 [39]. McDonald ω coefficient was 0.91.
- The *Social Support Scale* (SWS) by Kmiecik-Baran [40] measures global social support and its 4 types: informational, instrumental, appraisal, and emotional. Each scale consists of 6 items to be rated as true or false. Internal consistency, assessed using Cronbach's α , ranged 0.70–0.82 [40]. McDonald ω coefficient was 0.89.
- The *Trait Personality Inventory* (TPI) [26] measures depression as a personality trait. The instrument, which is part of the *State–Trait Personality Inventory* (STAI), consists of 40 items rated on a 4-point Likert scale (almost always, often, sometimes, never). The values of Cronbach's α coefficient ranged 0.68–0.88. McDonald ω coefficient was 0.80.
- The *Resiliency Assessment Scale* (SPP-25) was developed by Ogińska-Bulik and Juczyński. It measures global resiliency and its 5 dimensions: a) persistence and determination in action, b) openness to experience

and sense of humor, c) personal coping skills and tolerance of negative emotions, d) tolerance of failure and viewing life as a challenge, and e) optimistic approach to life and focus in difficult situations [41]. Respondents rate each item using a 5-point scale. The reliability of the scale, assessed using Cronbach's α , was 0.89, and its test-retest reliability ($r = 0.85$) was acceptable as well [41]. McDonald ω coefficient was 0.96.

All the measures administered in this study are appropriate for use with prisoners.

To assess the overall fit of the tested models, the following statistics were applied: χ^2 , the comparative fit index (CFI), the Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). The CFI values >0.90 and TLI values >0.90 and 0.95 indicate acceptable model fit. The RMSEA and SRMR values should ideally be <0.05 . Path analysis for all models was performed using Mplus v. 8.2.

RESULTS

Table 1 presents the means and standard deviations for PQoL and its correlates.

Raw PQoL scores were compared with the norms established by the authors of the SQLQ based on research conducted on different age groups: adolescents ($N = 93$), adults ($N = 73$), and seniors ($N = 55$). The spread of data around the means is similar for all variables measuring specific types of social support. The mean scores were the highest for perseverance and determination in action ($M \pm SD 13.9 \pm 4.20$) and openness to new experiences and sense of humor ($M \pm SD 13.9 \pm 3.96$); they were the lowest for optimistic approach to life and focus in difficult situations ($M \pm SD 13.3 \pm 3.82$).

The next step was correlation analysis. The correlations between the independent variables and PQoL are presented in Table 2.

The strongest positive correlate of PQoL was personal coping skills and tolerance of negative emotions ($r = 0.52$),

Table 1. Descriptive statistics for personal quality of life (PQoL) and its correlates in male prisoners (N = 390), District Inspectorate of Prison Service in Warsaw, Poland, 2014

Variable	M	SD	Min.	Max
PQoL	45.24	6.33	21	60
Self-efficacy	30.7	5.55	10	40
Social support: total score	84.02	14.87	31	116
informational	21.23	4.36	6	30
instrumental	20.9	4.29	9	30
appraisal	20.84	4.21	6	30
emotional	21.04	4.34	6	28
TPI depression	20.2	5.28	10	40
Ego-resiliency: total score	68.7	18.67	0	100
perseverance and determination in action	13.88	4.2	0	20
openness to new experiences and sense of humor	13.9	3.96	0	20
personal coping skills and tolerance of negative emotions	13.73	3.96	0	20
tolerance of failure and viewing life as a challenge	13.83	3.99	0	20
optimistic approach to life and focus in difficult situations	13.32	3.82	0	20

while the strongest negative correlate was depression ($r = -0.54$). All values of correlation coefficients except the value for emotional support were above $r = 0.40$.

The authors performed structural equation modeling to get a deeper insight into the associations found. The initial constructed model included all measures that correlated with PQoL (independent variables) and PQoL itself (dependent variable). The tested model provided acceptable fits to the dataset ($\chi^2 = 116.375$, $df = 47$, $p < 0.001$, $RMSEA = 0.062$, $CFI = 0.982$, $TLI = 0.975$, $SRMR = 0.027$). The structural equation model is presented in Figure 1.

The model shown in the figure above explains nearly 46% of the variance in PQoL. Table 3 presents the results concerning the associations between the variables included in the tested model.

The significant predictors of PQoL were self-efficacy ($\beta = 0.262$, $p < 0.001$), social support ($\beta = 0.207$, $p < 0.001$), ego-resiliency ($\beta = 0.172$, $p < 0.01$), and trait depression ($\beta = -0.253$, $p < 0.001$).

Ego-resiliency was a mediator between self-efficacy and PQoL ($\beta = 0.061$, $p < 0.01$) and between trait depression and PQoL ($\beta = -0.088$, $p < 0.01$). The indirect effect of social support on PQoL through ego-resiliency was statistically non-significant. Finally, the total effect of self-efficacy on PQoL through ego-resiliency was statistically significant ($\beta = 0.360$, $p < 0.01$), and so was the total effect of trait depression on PQoL through ego-resiliency ($\beta = 0.392$, $p < 0.001$).

DISCUSSION

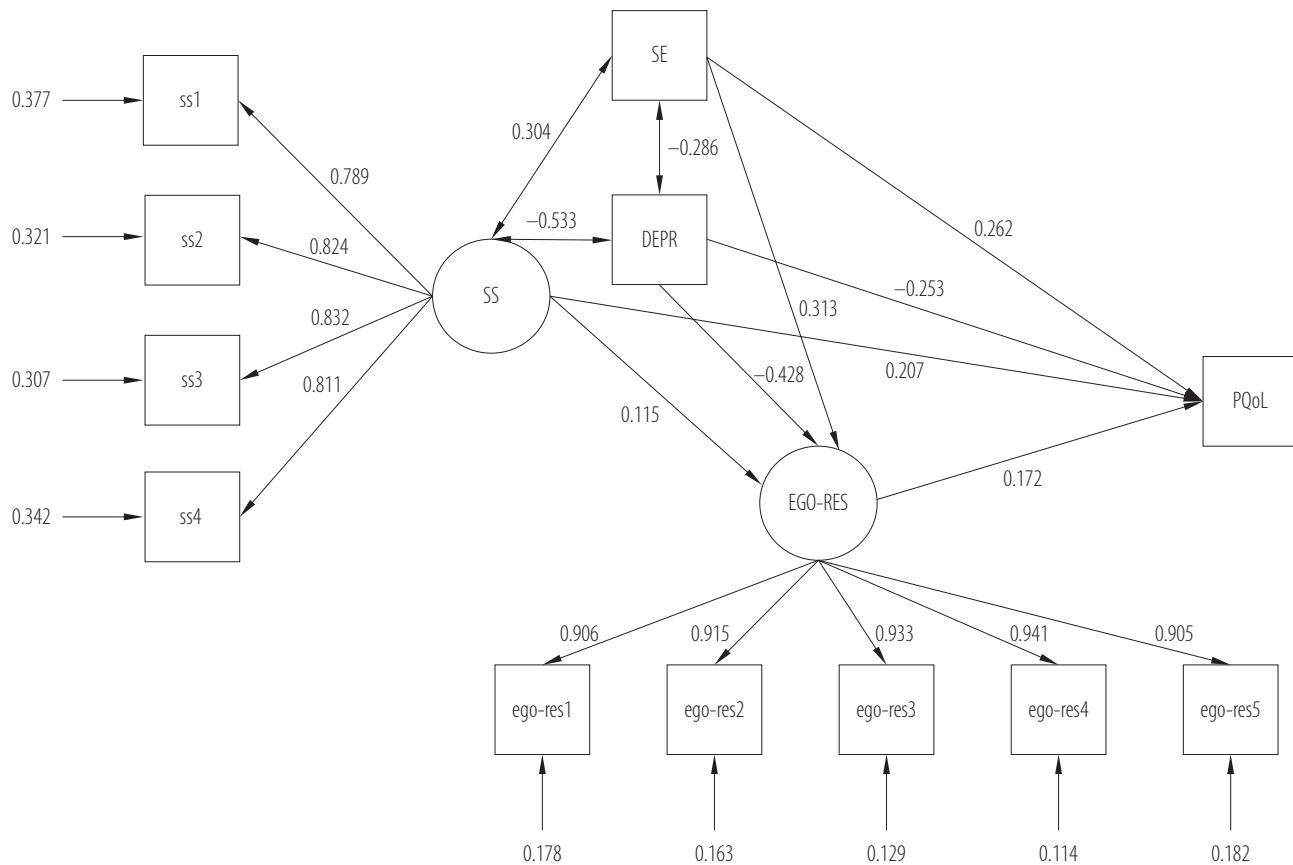
The present study aimed to analyze the factors that determine prisoners' personal quality of life (PQoL).

The first hypothesis was supported: ego-resiliency, self-efficacy, and social support are positive correlates of prisoners' PQoL and trait depression is its negative correlate. The second hypothesis was partially supported: trait depression and self-efficacy impact PQoL also indirectly, through ego-resiliency. Social support does not influence PQoL indirectly (through ego-resiliency).

Table 2. Pearson's product-moment correlation coefficients for personal quality of life (PQoL) and its correlates in male prisoners (N = 390), District Inspectorate of Prison Service in Warsaw, Poland, 2014

Variable	Pearson's correlation													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. PQoL	1	0.497**	0.468**	0.517**	0.496**	0.472**	0.523**	0.400**	0.404**	0.474**	0.335**	0.466**	-0.539**	0.479**
2. Perseverance and determination in action	1	0.854**	0.860**	0.842**	0.793**	0.931**	0.255**	0.291**	0.382**	0.336**	0.365**	-0.513**	0.424**	
3. Openness to new experiences and sense of humor	1	0.836**	0.860**	0.835**	0.835**	0.936**	0.260**	0.295**	0.373**	0.299**	0.354**	-0.518**	0.419**	
4. Personal coping skills and tolerance of negative emotions	1	0.880**	0.845**	0.845**	0.944**	0.311**	0.299**	0.407**	0.340**	0.392**	-0.557**	0.444**		
5. Tolerance of failure and viewing life as a challenge	1	0.863**	0.949**	0.321**	0.324**	0.418**	0.360**	0.411**	-0.551**	0.431**				
6. Optimistic approach to life and focus in difficult situations	1	0.924**	0.252**	0.269**	0.380**	0.285**	0.342**	-0.513**	0.454**					
7. Ego-resiliency: global score	1	0.299**	0.316**	0.418**	0.346**	0.398**	-0.566**	0.463**						
8. Informational	1	0.710**	0.620**	0.620**	0.855**	-0.419**	0.211**							
9. Instrumental	1	0.662**	0.655**	0.875**	0.875**	-0.398**	0.233**							
10. Appraisal	1	0.711**	0.864**	0.864**	0.864**	-0.475**	0.311**							
11. Emotional	1	0.864**	0.864**	0.864**	0.864**	-0.442**	0.224**							
12. Social support: total score	1	0.864**	0.864**	0.864**	0.864**	-0.442**	0.224**							
13. Depression (trait)	1	0.864**	0.864**	0.864**	0.864**	-0.442**	0.224**							
14. Self-efficacy	1	0.864**	0.864**	0.864**	0.864**	-0.442**	0.224**							

**p < 0.01.



DEPR – depression (trait); EGO-RES – ego-resilience (ego-res1 – perseverance and determination in action; ego-res2 – openness to new experiences and sense of humor; ego-res3 – personal coping skills and tolerance of negative emotions; ego-res4 – tolerance of failure and viewing life as a challenge; ego-res5 – optimistic approach to life and focus in difficult situations); SE – self-efficacy; SS – social support (ss1 – informational; ss2 – instrumental; ss3 – appraisal; ss4 – emotional).

Figure 1. Structural equation model for the personal quality of life (PQoL) of prison inmates (N = 390), District Inspectorate of Prison Service in Warsaw, Poland, 2014

Self-efficacy has been reported to be a fairly strong predictor of prisoners' PQoL. The more convinced a prisoner is of their ability to cope with a difficult situation [17,39], the higher is their sense of autonomy, independence, and identity. This is in line with the findings of other studies, including research on prisoners [42]. In their case, self-efficacy is related to the positive readaptation of individuals at risk of criminal behavior [42]. Self-efficacy is also related to active coping strategies: planning and active coping, which can lead to an improvement in PQoL. This study has confirmed that another variable with a significant positive effect on prisoners' PQoL is social support.

A lower level of received social support results in a lower level of PQoL. This applies to all types of social support: emotional, instrumental, informational, and appraisal. Prisoners therefore need positive feedback, acceptance, and respect (i.e., emotional support) from prison staff and other inmates. Incarcerated persons need to get concrete help in problem solving (i.e., instrumental and informational support). As regards appraisal support, emphasis is placed on communicating to the individual that they have the abilities and capacities that are of importance for the proper functioning of a person and group [40]. Subjectively perceived PQoL tends to increase with the amount

Table 3. The relationships observed among the study variables included in the model in the study on male prisoners (N = 390), District Inspectorate of Prison Service in Warsaw, Poland, 2014

Variables	Estimate	SE	Estimate/SE	R ²
PQoL ON				0.457***
self-efficacy	0.262***	0.042	6.174	
depression (trait)	−0.253***	0.050	−5.052	
social support	0.207***	0.049	4.213	
ego-resiliency	0.172**	0.052	3.327	
Ego-resiliency ON				0.445***
social-support	0.115*	0.051	2.266	
self-efficacy	0.313***	0.040	7.748	
depression (trait)	−0.428***	0.045	−9.465	
Self-efficacy WITH				
social support	0.304***	0.049	6.183	
Depression (trait) WITH				
social support	−0.533***	0.039	−13.492	
self-efficacy	−0.286***	0.046	−6.157	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

of appraisal support a person receives. This is understandable in the context of prisoners' functioning. As some authors have noted [43], prisoners' priority challenge is to find their place in the hierarchy that has been established in the prison community and to adapt to the rules that govern the prison subculture. In other words, the satisfaction of a person's needs – in this case, personal needs such as the need for autonomy or individuality – depends on the degree to which the person perceives themselves and feels comfortable as a member of that subculture. What is also important is relations with the prison staff: if they are supportive and generally positive, prisoners' QoL is more likely to be high [3,44]. It should be added that many other studies show a positive link between social support and QoL, for example in seniors.

Meanwhile, based on her research conducted among prisoners serving a life sentence, Niełaczná [3] concluded that, due to the large number of prisoners in penitentiary institutions and the relatively small number of officers

working in "direct contact" with prisoners, inmates have turned from users into residents. There is a shortage of suitable places, opportunities, and people who could make an effort to satisfy prisoners' needs and coordinate their initiatives and activities on a daily basis (e.g., activities in the day room, meetings of special interests groups, or charity activities) [3].

Trait depression negatively correlates with PQoL in prisoners. The negative relationship between depression and QoL has been confirmed many times in other studies, for example in chronically ill teenagers [28] and in a population of seniors [45]. These results suggest that, in work with prisoners, it is essential to devote attention to individuals who show depressive symptoms. They should be the first to receive the support they need, because trait depression is a significant negative determinant of important components of prisoners' PQoL [46] and is closely linked suicide risk [47]. Moreover, a few studies confirmed negative correlations of depression with active

coping strategies, such as planning, and its positive correlations with avoidant strategies [48].

Ego-resiliency positively predicts PQoL. This is consistent with the findings of a study conducted with different samples [49]. A prison is a total institution, which controls and appropriates all domains of an individual's life. It is governed by complex and at the same time strict procedures that everyone has to follow. A prisoner shares every moment at work, during meals, or during leisure time with others [50]. Prisoners are largely deprived control over the situation, and in most cases they cannot make decisions concerning, for instance, the daily schedule, because it is imposed; they do not even attempt to change the schedule and adjust it to their needs; they do not see the point in taking action and do not take it. Ego-resiliency enables flexible adaptation to the stressful conditions in prisons. It is a relatively constant trait of the individual [49]. However, 2 factors affect ego-resiliency: self-efficacy and trait depression. Correctional interventions should focus on these factors, which should be included in rehabilitation programs.

CONCLUSIONS

The deprivation of liberty situation – both literal, associated with incarceration within prison walls, and metaphorical, relating to the person's rights and needs – can be a burden too difficult to bear and may lead to suicide. Research results confirm that incarceration is related to suicide risk. Variables associated with prisoners' serious suicide bids include a considerable number of clinical, psychosocial, and environmental factors that can be modified [51]. Mental health issues (major depressive symptoms, psychosis, anxiety, and drug misuse disorders) and the comorbidity of disorders have been identified as factors associated with, and potentially precipitating, prisoners' near-lethal suicide attempts. Moreover, some studies confirm the relationships of suicide risk to aggression,

impulsivity, hostility, childhood trauma (e.g., violence), and hopelessness [51] or to low levels of social support and self-esteem. A strategy including the improvement of inmates' personal QoL should be part of suicide prevention in prisons.

There is a link between the prison environment and prisoners' more or less successful reintegration into society [52]. Therefore, improving QoL as an indicator of the prison environment should be the focus of measures taken by the prison staff. Some studies have shown that “most people who have done time in the best-run prisons return to the free world with little or no permanent, clinically-diagnosable psychological disorders as a result” [53, p. 5]. A greater degree of autonomy within prison walls may alleviate some of the pains associated with the prison sentence [9].

The main shortcoming of this study lies in the fact that the gender differences were not included in the analyses. The lack of a representative sample makes it impossible to generalize the conclusions. Another limitation is the lack of control for variables such as: social climate, health, conflicts in prison, time spent in prison, sentence length, or cell size. Some of the data were missing, which prevented us from performing analyses including these variables. It would be beneficial to conduct longitudinal research into the dynamics of changes in prisoners' quality of life. Future investigators are encouraged to explore other potential determinants of personal quality of life among incarcerated persons.

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